SECTION 09 90 00.50

PAINTS AND COATINGS FOR LEED V4 PROJECTS

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\*\* NOTE TO SPECIFIER \*\* PPG Architectural Finishes, Incorporated - PPG Paints; interior and exterior paints  
This section is based on the products of PPG Architectural Finishes, Incorporated - PPG Paints, which is located at:  
400 Bertha Lamme Dr.  
Cranberry Township, PA 16066  
Toll Free Tel: 888-PPG-IDEA  
Fax: 888-434-3127  
Email: [request info (brian.joyce@ppg.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=PPG+Architectural+Finishes,+Incorporated+-+PPG+Paints&coid=41841&rep=&fax=888-434-3127&message=RE:%20Spec%20Question%20(09901ppg):%20%20&mf=)  
Web: <https://www.ppgpaints.com>   
 [ [Click Here](https://www.arcat.com/arcatcos/cos41/arc41841.html) ] for additional information.  
A tradition was established early with PPG - use the best technology, manufacture the best quality products and provide exceptional, dedicated service. Today, that steadfast commitment to excellence is evident in every aspect of our business. We offer solutions for architects,specifiers, paint dealers and contractors in all markets... commercial, industrial and residential.Today, PPG Paints and PPG Protective and Marine Coatings continue the foremost tradition of supplying high quality, comprehensive products lines, leading edge technologies and tailored support programs for each market segment.  
Global Resources  
PPG Paints and PPG Protective and Marine Coatings are from a global leader in coatings technology and a leading supplier to the building products industry. With over 100 years experience and R&D capabilities second to none, you can be sure we're bringing you the latest product advancements.  
One of the Industry's Most Comprehensive Product Lines  
Specially formulated to meet the requirements for each market, PPG Paints and PPG Protective and Marine Coatings offer a product for every application.  
Commercial:  
Building on a long heritage of quality and performance, we continue to update our commercial product line to meet all current specifications, as well as current and proposed environmental regulations. Count on PPG Paints for the products you need to meet the most demanding commercial applications.  
Industrial:  
PPG offers a complete line of protective and marine coatings for the most demanding environments. From epoxies and urethanes to polysiloxanes, PPG Protective & Marine coatings provide outstanding products and service to meet your needs.Institutional:Introducing a new low-odor, zero VOC PPG Paints product, Pure Performance, that offers excellent durability, washability, and touch-up. Ideal for schools, hotels, hospitals, office buildings, government offices, retail space - any space where job-site disruption is a concern and a top-performing, zero VOC product is needed.  
Residential:  
Exterior paints that stand up to the elements and still look great. Interior paints thatreflect the perfect mood and style. Wood stains and clears for decks and siding. Primers that start the job off right. No matter what the need, PPG Paints has the complete product line for today's residential applications.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Surface preparation and field painting of exposed interior items and surfaces.
    2. Surface preparation and field painting of exposed exterior items and surfaces.
    3. Surface preparation and field application of interior high-performance coating systems to items and surfaces scheduled.
    4. Surface preparation and field application of exterior high-performance coating systems to items and surfaces scheduled.
    5. Painting of exposed bare and covered pipes and ducts, hangers, exposed steel and iron supports, and surfaces of mechanical and electrical equipment that do not have a factory-applied final finish.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete (03 30 00) - Cast-in-Place Concrete.
    2. Section 05 12 13 - Architecturally-Exposed Structural Steel Framing (05 12 00) - Structural Steel Framing.
    3. Section 05 50 00 - Metal Fabrications (05 50 00) - Metal Fabrications.
    4. Section 06 20 00 - Finish Carpentry (06 20 00) - Finish Carpentry: Shop priming architectural woodwork.
    5. Section 08 11 13.13 - Standard Hollow Metal Doors and Frames (08 11 13) - Hollow Metal Doors and Frames.
    6. Section 09 21 16.33 - Gypsum Board Area Separation Wall Assemblies (09 21 16) - Gypsum Board Assemblies.
  1. REFERENCE Standards
     1. ASTM International (ASTM):
        1. ASTM D16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications.
     2. The California Air Resources Board (CARB):
        1. CARB (SCM) - Suggested Control Measure for Architectural Coatings; California Air Resources Board 2007.
     3. The South Coast Air Quality Management District (SCAQMD):
        1. SCAQMD 1113 - Architectural Coatings 1977 (Amended 2016).
     4. Steel Structures Painting Council (SSPC):
        1. SSPC SP6 - Commercial Blast Cleaning Procedures.
  2. DEFINITIONS
     1. General: Standard coating terms defined in ASTM D16.
        1. Flat refers to a lusterless or matte finish with a gloss range below 15 when measured at an 85 degree meter.
        2. Eggshell refers to low-sheen finish with a gloss range between 20 and 35 when measured at a 60 degree meter.
        3. Semi-Gloss refers to medium-sheen finish with a gloss range between 35 and 70 when measured at a 60 degree meter.
        4. Full gloss refers to high-sheen finish with a gloss range more than 70 when measured at a 60 degree meter.
     2. Environments: The following terms distinguish between different corrosive exposures:
        1. Severe Environments: Highly corrosive industrial atmospheres with sustained exposure to high humidity and condensation and with frequent cleaning using strong chemicals. Environments with heavy concentrations of strong chemical fumes and frequent splashing and spilling of harsh chemical products are severe environments.
        2. Moderate Environments: Corrosive industrial atmospheres with intermittent exposure to high humidity and condensation, occasional mold and mildew development, and regular cleaning with strong chemicals. Environments with exposure to heavy concentrations of chemical fumes and occasional splashing and spilling of chemical products are moderate environments.
        3. Mild Environments: Industrial atmospheres with normal exposure to moderate humidity and condensation, occasional mold and mildew development, and infrequent cleaning with strong chemicals. Environments with low levels of mild chemical fumes and occasional splashing and spilling of chemical products are mild environments. Normal outdoor weathering is also considered a mild environment.
  3. SUBMITTALS
     1. See Section 01 30 00 - Administrative Requirements.
     2. Product Data: For each paint system indicated, including:
        1. Material List: An inclusive list of required coating materials. Indicate each material and cross reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
        2. Preparation instructions and recommendations.
        3. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.

\*\* NOTE TO SPECIFIER \*\* Delete selection samples if colors have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
    2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.
  1. QUALITY ASSURANCE
     1. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this project, whose work has resulted in applications with a record of successful in-service performance.
     2. Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.
     3. Paint exposed surfaces. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
     4. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
       1. See Section 01 40 00 - Quality Requirements.
       2. Finish areas designated by Architect.
       3. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
       4. Refinish mock-up area as required to produce acceptable work.
  1. DELIVERY, STORAGE, AND HANDLING
     1. Deliver materials to project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label.
     2. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 degrees F (7 degrees C). Maintain storage containers in a clean condition, free of foreign materials and residue.
  2. PROJECT CONDITIONS
     1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
     2. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 degrees F (10 degrees C) and 90 degrees F (32 degrees C).
     3. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 degrees F (7 degrees C) and 95 degrees F (35 degrees C).
     4. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 degrees F (3 degrees C) above the dew point; or to damp or wet surfaces.
        1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

\*\* NOTE TO SPECIFIER \*\* Extra materials may not be allowed for publicly funded projects. Do not include for High Performance Coatings (HPC). Delete if not required.

* 1. EXTRA MATERIALS
     1. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
     2. Quantity: Furnish Owner with an additional three percent, but not less than 1 gallon (3.8 l) or 1 case, as appropriate, of each material and color applied.

1. PRODUCTS
   1. MANUFACTURERS
      1. Basis of Design Manufacturer: PPG Paints, 400 Bertha Lamme Drive Cranberry, PA 16066. Toll Free Tel: 888-PPG-IDEA. Web: www.ppgpaints.com/#sle.

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
  1. PAINT MATERlALS - GENERAL
     1. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
     2. VOC Classification: Provide high-performance coating materials, including primers, undercoats, and finish-coat materials, that meet the applicable local, state or federal VOC requirements.
     3. LEED v4.1 EQ Credit: Low Emitting Materials, VOC Limits:
        1. Interior Applications: For LEED v4.1 Compliance, 100 percent of paint and coatings products by volume applied to the interior must comply with the wet applied VOC content limits.

\*\* NOTE TO SPECIFIER \*\* Choose one VOC Content Limit below.

* + - * 1. CARB (SCM): The California Air Resources Board (CARB) 2007 Suggested Control Measure (SCM).
        2. SCAQMD 1113: The South Coast Air Quality Management District (SCAQMD) Rule 1113, Rule in Effect 2/5/16.
    1. Commonly Used Coatings VOC Limits: Consult CARB or South Coast websites for full category limits.
       1. Coating Category: Flats.
          1. CARB 2007 SCM VOC Limit: 50 grams per Liter
          2. SCAQMD R1113, 2/5/16 VOC Limit: 50 grams per Liter
       2. Coating Category: Non-Flats.
          1. CARB 2007 SCM VOC Limit: 100 grams per Liter
          2. SCAQMD R1113, 2/5/16 VOC Limit: 50grams per Liter
       3. Coating Category: Non-Flat, High Gloss.
          1. CARB 2007 SCM VOC Limit: 150 grams per Liter
          2. SCAQMD R1113, 2/5/16 VOC Limit: 50 grams per Liter
       4. Coating Category: Primers, Sealers and Undercoaters.
          1. CARB 2007 SCM VOC Limit: 100 grams per Liter
          2. SCAQMD R1113, 2/5/16 VOC Limit: 100 grams per Liter
       5. Coating Category: Floor Coatings.
          1. CARB 2007 SCM VOC Limit: 100 grams per Liter
          2. SCAQMD R1113, 2/5/16 VOC Limit: 50 grams per Liter
       6. Coating Category: Industrial Maintenance Coatings.
          1. CARB 2007 SCM VOC Limit: 250 grams per Liter
          2. SCAQMD R1113, 2/5/16 VOC Limit: 100 grams per Liter
       7. Coating Category: Rust Preventive Coatings.
          1. CARB 2007 SCM VOC Limit: 250 grams per Liter
          2. SCAQMD R1113, 2/5/16 VOC Limit: 100 grams per Liter
    2. LEED v4.1 EQ Credit: Low Emitting Materials, Emissions Requirement:
       1. Interior Applications: For LEED v4.1 compliance, 75 percent of paint and coatings products by volume applied to the interior must comply with emissions requirements.
       2. To demonstrate compliance, a product or layer containing paint must meet the following requirement, as applicable, with regard to emissions:
    3. LEED v4.1 MR Credit: Building Product Disclosure and OptimizationEnvironmental Product Declarations.
       1. Option 1. Environmental Product Declaration (EPD) (1 point): Use at least 20 different permanently installed products sourced from at least five different manufacturers that meet one of the disclosure criteria below.
          1. Product Specific Type III EPD -- Products with third-party certification (Type III), including external verification in which the manufacturer is explicitly recognized as the participant by the program operator are valued as one whole product for purposes of credit achievement calculation.

\*\* NOTE TO SPECIFIER \*\* Consult your PPG Architect or Sales Representative for manufacturing site and/or point of purchase location. In most instances PPG should be able to provide product to within 100 miles of the project site from the point of purchase.

* + 1. LEED v4.1 MR Credit: Building Product Disclosure and Optimization--Material Ingredients
       1. Option 1. Material Ingredient Reporting (1 point): Use at least 20 different permanently installed products from at least five different manufacturers that use any of the following programs to demonstrate the chemical inventory of the product to at least 0.1 percent (1000 ppm).
          1. Health Product Declaration (HPD). The end use product has a published, complete Health Product Declaration with full disclosure of known hazards in compliance with the Health Product Declaration open Standard.

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. CONCRETE MASONRY UNIT BLOCK FILLER
     1. Concrete Masonry Unit Block Filler: Factory formulated high-performance latex block fillers.
        1. PPG Paints; 6-15XI Speedhide Interior/Exterior Acrylic Masonry Block Filler (48 g/L VOC).
           1. Applied dry film thickness of not less than 7.0 mils (0.178 mm).

\*\* NOTE TO SPECIFIER \*\* Delete article if not required.

* 1. INTERIOR PRIMERS

\*\* NOTE TO SPECIFIER \*\* Delete paragraph if not required.

* + 1. Interior Concrete and Masonry Primer: Factory-formulated alkali-resistant acrylic-latex interior primer for interior application.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 6-2 Speedhide Interior Latex Sealer Quick-Drying (46 g/L VOC).
         1. Applied dry film thickness of not less than 1.0 mils (0.025 mm).
      2. PPG Paints; 6-4900XI Speedhide Zero Interior Zero VOC Latex Sealer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      3. PPG Paints; 4-603XI Perma-Crete Interior/Exterior Alkali Resistant Primer (Less than 100 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      4. PPG Paints; 6-4900XI Speedhide zero Interior Zero VOC Latex Sealer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      5. PPG Paints; 17-921XI Series Seal Grip Acrylic Universal Primer (84 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm).
    1. Interior Gypsum Board Primer: Factory-formulated latex-based primer for interior application.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 12-900XI Speedhide Pro-EV Zero Interior Latex Primer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.0 mils (0.025 mm).
      2. PPG Paints; 6-2 Speedhide Interior Latex Sealer Quick-Drying (46 g/L VOC).
         1. Applied dry film thickness of not less than 1.0 mils (0.025 mm).
      3. PPG Paints; 6-4900XI Speedhide Zero Interior Zero VOC Latex Sealer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      4. PPG Paints; 9-900 Pure Performance Interior Latex Primer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      5. PPG Paints; 17-951 Seal Grip Interior Primer/Finish (45 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      6. PPG Paints; 17-921XI Series Seal Grip Acrylic Universal Primer (84 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm).
    1. Interior Plaster Primer: Factory-formulated latex-based primer for interior application.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 9-900 Series Pure Performance Interior Latex Primer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      2. PPG Paints; 17-951 Seal Grip Interior Primer/Finish (45 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      3. PPG Paints; 17-921XI Series Seal Grip Acrylic Universal Primer (84 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm).
    1. Interior Wood Primer: Factory-formulated acrylic-latex-based interior wood primer.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 12-900XI Speedhide Pro-EV Zero Interior Latex Primer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.0 mils (0.025 mm).
      2. PPG Paints; 6-2 Speedhide Interior Latex Sealer Quick-Drying (46 g/L VOC).
         1. Applied dry film thickness of not less than 1.0 mils (0.025 mm).
      3. PPG Paints; 6-4900XI Speedhide Zero Interior Zero VOC Latex Sealer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      4. PPG Paints; 9-900 Pure Performance Interior Latex Primer (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      5. PPG Paints; 17-951 Seal Grip Interior Primer/Finish (45 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      6. PPG Paints; 17-921XI Series Seal Grip Acrylic Universal Primer (84 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm).
    1. Interior Ferrous, Non-Ferrous, Galvanized Metal, and Aluminum Primer: Factory-formulated acrylic water-based rust-inhibitive metal primer.
       1. PPG Paints; 90-1912 Series Pitt-Tech Plus EP Interior/Exterior DTM Industrial Primer (less than 50 g/L VOC).
          1. Applied dry film thickness of not less than 2.0 mils (0.050 mm).

\*\* NOTE TO SPECIFIER \*\* Delete articles not required.

* 1. INTERIOR FINISH COATS

\*\* NOTE TO SPECIFIER \*\* Delete paragraphs not required.

* + 1. Interior Flat Latex (Gloss Level 1): Factory-formulated flat acrylic latex-based interior paint.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 12-110XI Series Speedhide Pro-EV Zero Interior Wall and Ceiling Latex Flat (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.3 mils (0.033 mm).
      2. PPG Paints; 6-0011 Series Speedhide Interior Latex Ultra Flat (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      3. PPG Paints; 6-70 Series Speedhide Interior Wall Flat-Latex Paint (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.3 mils (0.033 mm).
      4. PPG Paints; 6-5110 Series Speedhide Zero Interior Zero VOC Latex Flat (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      5. PPG Paints; 9-110XI Series Pure Performance Paint and Primer in One Flat Latex (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.5 mils (0.038 mm).
      6. PPG Paints; 84-3110 Series Prominence Interior Latex Flat (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.8 mils (0.046 mm).
    1. Interior Low-Sheen Acrylic Enamel (Gloss Level 2): Factory-formulated low-sheen acrylic-latex interior enamel.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 12-310XI Series Speedhide Pro-EV Zero Interior Wall and Ceiling Latex Eggshell (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.3 mils (0.033 mm).
      2. PPG Paints; 6-4101 Series Speedhide Interior Latex Low Sheen Eggshell (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      3. PPG Paints; 6-411 Series Speedhide Acrylic Latex Enamel Eggshell (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.5 mils (0.038 mm).
      4. PPG Paints; 6-5310 Series Speedhide Zero Interior Latex Eggshell (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.5 mils (0.038 mm).
      5. PPG Paints; 9-310XI Series Pure Performance Paint and Primer in One Latex Eggshell (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      6. PPG Paints; 84-3310 Series Prominence Interior Latex Eggshell (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm).
    1. Interior Eggshell Acrylic Enamel (Gloss Level 3): Factory-formulated eggshell acrylic-latex interior enamel.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 6-3511 Series Speedhide Interior Latex Satin (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.3 mils (0.033 mm).
      2. PPG Paints; 6-5410 Series Speedhide Zero Interior Zero VOC Latex Satin (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      3. PPG Paints; 84-3410 Series Prominence Interior Latex Satin (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm).
      4. PPG Paints; 29-1310 Copper Armor Interior Latex Eggshell (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm).
    1. Interior Satin Acrylic Enamel (Gloss Level 4): Factory-formulated satin acrylic-latex interior enamel.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 6-3011 Series Speedhide Interior Latex Lo Lustre (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.3 mils (0.033 mm).
      2. PPG Paints; V52-410 Series Break-Through Interior/Exterior Water-Borne Acrylic Satin (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      3. PPG Paints; 90-1710 Pitt-Tech Plus EP Interior/Exterior DTM Industrial Enamel Satin (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 2.0 mils (0.050 mm).
    1. Interior Semi-Gloss Acrylic Enamel (Gloss Level 5): Factory-formulated semi-gloss acrylic-latex enamel.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; 12-510XI Series Speedhide Pro-EV Zero Interior Wall and Ceiling Latex Semi-Gloss (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.2 mils (0.030 mm).
      2. PPG Paints; 6-500 Series Speedhide Interior Latex Semi-Gloss (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      3. PPG Paints; 6-5510 Series Speedhide Zero Interior Zero VOC Latex Semi-Gloss (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.5 mils (0.038 mm).
      4. PPG Paints; 9-510XI Series Pure Performance Paint and Primer in One Latex Semi-Gloss (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      5. PPG Paints; 84-3510 Series Prominence Interior Latex Semi-Gloss (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.0410 mm).
      6. PPG Paints; 90-1610 Series Pitt-Tech Plus EPInterior/Exterior DTM Industrial Enamel Semi-Gloss (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 2.0 mils (0.050 mm).
      7. PPG Paints; V62-510 Series Break-Through Interior/Exterior Water-Borne Acrylic Semi-Gloss (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.5 mils (0.038 mm).
      8. PPG Paints; 29-1510 Copper Armor Interior Latex Semi-Gloss (0 g/L VOC).
         1. Applied dry film thickness of not less than 1.6 mils (0.041 mm)
      9. PPG Paints; 98E-1/98E-100 Aquapon WB EP Epoxy Semi-Gloss (26 g/L VOC).
         1. Applied dry film thickness of not less than 2.0 mils (0.050 mm).
    1. Interior Full-Gloss Acrylic Enamel (Gloss Level 6): Factory-formulated full-gloss acrylic-latex interior enamel.

\*\* NOTE TO SPECIFIER \*\* Delete subparagraphs not required.

* + - 1. PPG Paints; V72-610 Series Break-Through Interior/Exterior Water-Borne Acrylic Gloss (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 1.4 mils (0.036 mm).
      2. PPG Paints; 90-1510 Pitt-Tech Plus EP Interior/Exterior DTM Industrial Enamel Gloss (less than 50 g/L VOC).
         1. Applied dry film thickness of not less than 2.0 mils (0.050 mm).
      3. PPG Paints; 98E-1/98E-98 Aquapon WB EP Epoxy Gloss (26 g/L VOC).
         1. Applied dry film thickness of not less than 2.0 mils (0.050 mm).
    1. Interior Eggshell Water Borne Acrylic Epoxy:
       1. PPG Paints; 16-310 Series Pitt-Glaze WB1 Interior Pre-Catalyzed Water-Borne Acrylic Epoxy Eggshell (95 g/L VOC).
          1. Applied dry film thickness of not less than 1.5 mils (0.038 mm).
    2. Interior Semi-Gloss Water Borne Acrylic Epoxy:
       1. PPG Paints; 16-510 Series Pitt-Glaze WB1 Interior Pre-Catalyzed Water-Borne Acrylic Epoxy Semi-Gloss (97 g/L VOC).
          1. Applied dry film thickness of not less than 1.5 mils (0.038 mm).
    3. Interior Flat Waterborne Acrylic Dry Fog:
       1. PPG Paints; 6-725XI Speedhide Super-Tech WB Interior Dry Fog Latex Flat (30 g/L VOC).
          1. Applied dry film thickness of not less than 2.2 mils (0.056 mm).
    4. Interior Eggshell Waterborne Acrylic Dry Fog:
       1. PPG Paints; 6-724XI Speedhide Super-Tech WB Interior Dry Fog Latex Eggshell (30 g/L VOC).
          1. Applied dry film thickness of not less than 2.2 mils (0.056 mm).
    5. Interior Semi-Gloss Waterborne Acrylic Dry Fog:
       1. PPG Paints; 6-727XI Series Speedhide Super Tech WB Interior Dry Fog Latex Semi-Gloss (less than 50 g/L VOC).
          1. Applied dry film thickness of not less than 2.2 mils (0.056 mm).
    6. Interior/Exterior High Performance Satin Polysiloxane:
       1. PPG Paints; PSX 805 Engineered Siloxane Satin (75 g/L VOC).
          1. Applied dry film thickness of not less than 3.0 mils (0.076 mm).

1. EXECUTION
   1. EXAMINATION
      1. Do not begin installation until substrates have been properly prepared.
      2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
   2. PREPARATION
      1. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
         1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
      2. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.
         1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
      3. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each substrate condition and as specified.
         1. Provide barrier coats over incompatible primers or remove and reprime.

\*\* NOTE TO SPECIFIER \*\* Delete substrates not required.

* + - 1. Cementitious Substrates: Prepare concrete, brick, concrete masonry block, and cement plaster surfaces to be coated. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods to prepare surfaces.
         1. Use abrasive blast-cleaning methods if recommended by coating manufacturer.
         2. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not coat surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
      2. Wood Substrates: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Smoothly sand surfaces exposed to view and dust off.
         1. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer, before applying primer.
         2. Immediately on delivery, prime edges, ends, faces, undersides, and backsides of wood to be coated.
         3. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
      3. Ferrous Metal Substrates: Clean ungalvanized ferrous metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.
         1. Blast-clean steel surfaces as recommended by coating manufacturer and according to SSPC-SP 6.
         2. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
         3. Touch up bare areas and shop-applied prime coats that have been damaged. Wire brush, solvent clean, and touch up with same primer as the shop coat.
      4. Non-Ferrous Metal Substrates: Clean non-ferrous and galvanized surfaces according to manufacturer's written instructions for the type of service, metal substrate, and application required.
         1. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
    1. Material Preparation: Carefully mix and prepare coating materials according to manufacturer's written instructions.
       1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.
       2. Stir materials before applying to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into the material. Remove film and, if necessary, strain coating material before using.
       3. Use only the type of thinners approved by manufacturer and only within recommended limits.
       4. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.
  1. APPLICATION
     1. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
     2. General: Apply high-performance coatings according to manufacturer's written instructions.
        1. Use applicators and techniques best suited for the material being applied.
        2. Do not apply high-performance coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
        3. Coating surface treatments and finishes are indicated in the coating system descriptions.
        4. Provide finish coats compatible with primers used.
        5. The term "exposed surfaces" includes areas visible when permanent or built-in fixtures, convector covers, grilles, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.
     3. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
        1. The number of coats and film thickness required is the same regardless of application method.
        2. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements.
  2. FIELD QUALITY CONTROL
     1. See Section 01 40 00 - Quality Requirements.
  3. CLEANING
     1. After completing painting, clean glass and paint spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.
  4. PROTECTION
     1. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
     2. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
     3. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

END OF SECTION